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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,264	02/21/2002	James L. Webber	DP-305654	9095

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EXAMINER

CULBRETH, ERIC D

ART UNIT

PAPER NUMBER

3616

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,264

Applicant(s)

WEBBER ET AL

Examiner

Eric D Culbreth

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-18 and 21-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-18 and 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following informalities. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

In Figures 4-5, scallops 170 are on the wrong side of the cam to prevent movement toward the seat restraint; contrary to applicant's remarks, the arrangement as illustrated would cause the cam's scallops to pivot away from the cable when the cable moves away toward the seat restraint.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 29 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In the embodiment with the clamping surface at an angle (Figures 4-5), the scallops and cam would never clamp.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Contrary to the claim limitations, the device would never clamp.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 5-7, 9, 16, 21, 23, 25-29 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Wier (both of record).

Meyer et al discloses a tensioner comprising a frame with counterplate 17 for operative connection to vehicle structure as functionally recited (i.e., via the hole at the left end of the frame with counterplate 17 in Figure 1), cable 10 with a first top end connected to a seat restraint at belt buckle 11, and a movable mechanism including piston 14 connected to the second end of the cable 10 to tighten the seat restraint when activated. Rotatable cam 16 is pivotally connected to the frame at 23 and has a radius portion at eccentric arc 19 on an end and an eccentric portion 18 on an opposite end. There are scallops on the radius portion. Counter plate 17 is a base wall of the frame forming a clamping surface below the scallops on radius portion 19, and the cam 16 cooperates with the cable to generate a clamping force to clamp the cable between the cam and the clamping surface at 17 to prevent reverse travel of the cable after tightening of the seat restraint. However, Meyer et al does not disclose opposed side walls extending from the base

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wall and the clamping surface above the scallops instead of below them. Wier discloses cable 14 passing between opposed walls of an attachment section 20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer et al to include opposed side walls on the base wall 17 as taught by Wier in order to positively guide the cable during travel when tightening the seat restraint. Regarding the limitation of placing the base wall above the scallops, in the combination Wier teaches in Figure 3 the opposing side walls extending down from a base wall connecting them, and this feature would be included in the combination (claim 1). At any rate, case law holds (In re Japiske, (86 USPQ 70 (CCPA 1950)) that there would be no invention in shifting parts disclosed in the prior art to a different position when the operation of the device would not thereby be modified (i.e., placing the clamping surface above the scallops instead of below them, disposing the clamping surface at an angle relative to the longitudinal axis of the housing) (claims 1 and 28-29). Regarding claims 5 and 21, in the combination Wier teaches an aperture extending through the base wall along the top of attachment section 20 where cable 14 emerges, and this feature would be included in the combination. Meyer et al teach a cable fitting for connection to the seat restraint (i.e., some structure or device at the top of cable 10 of Meyer et al connects the buckle 11 and cable 10)(claim 6), and in the combination the cable would extend through Wier's aperture with one end of the cable connected to the cable fitting and the other end connected to piston 14 of the movable mechanism, the cable extending along the cam in keeping with Meyer et al, the primary reference (claim 7). Meyer et al's movable mechanism also includes housing 13 for connection to vehicle structure ultimately through the frame inasmuch as applicant's housing 42 attached to frame 34 and gas generator 15 in addition to piston 14 (claims 9 and 16). Regarding claims 23

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and 25, Meyer et al's piston 14 has a groove as illustrated in Figure 1, and the groove is annular in keeping with Meyer et al's annular cylinder 13 and consequently annular piston 14. Meyer et al's cable 10 extends through a longitudinally extending passageway in the piston. Noting claims 26-27, a clamp is illustrated on Meyer et al's end of the cable 10 in Figure 1 adjacent the piston 14 to keep the cable from exiting the passageway, and a retainer is illustrated in Figure 1 of Meyer et al on the left end of gas generator 15 in the housing 13 to retain the generator.

8. Claims 8 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Wier as applied to claims 7 and 21 above, and further in view of Isaji et al (of record).

Meyer et al and Wier do not teach a cable guide in the aperture. Isaji et al teaches member 129 guiding a cable 105B in a base aperture. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer et al and Wier to include a member in the base aperture guiding the cable attached to the buckle in the combination as taught by Isaji et al in order to buffer the buckle when it retracts (column 4, lines 21-23 of Isaji et al).

9. Claims 10-12, 15 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Wier as applied to claims 9 and 23 above, and further in view of Greiner (of record).

Meyer et al and Wier do not teach a seal in an annular groove in the piston, nor a pyrotechnic device. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify Meyer et al and Wier above to include a groove and seal on the piston and a pyrotechnic device as taught by Greiner (column 2, lines 10-20) in order to conventionally generate gas and seal around the piston so that the gas moves the piston efficiently.

10. Claims 13-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Wier as applied to claims 9 and 16 above, and further in view of Downie et al (of record).

Meyer et al and Wier do not teach the gas generator portion having a larger diameter than the piston portion. Meyer et al's tube 13 is circular, as indicated by the lines near the top of the tube in front of piston 14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Meyer et al and Wier above to have a larger diameter gas generator portion as taught by Downie et al (note generant 15 in a larger area) in order to reduce pressure when slack is present (column 2, lines 2-12).

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al in view of Wier and Downie et al as applied to claim 17 above, and further in view of Greiner.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of claim 17 above to include a pyrotechnic device as taught by Greiner in order to conventionally move the piston.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric D Culbreth whose telephone number is 703/308-0360. The examiner can normally be reached on Monday-Thursday, 9:30-7:00 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703/746-3508.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Eric D Culbreth
Primary Examiner
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